

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE  
in its capacity as elected Office

Date of mailing: 18 January 2001 (18.01.01)	
International application No.: PCT/AU00/00781	Applicant's or agent's file reference: 5189wee
International filing date: 30 June 2000 (30.06.00)	Priority date: 07 July 1999 (07.07.99)
Applicant: WEEKS, Kevin, William	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International preliminary Examining Authority on:  
30 June 2000 (30.06.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer:  J. Zahra Telephone No.: (41-22) 338.83.38
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From the INTERNATIONAL BUREAU

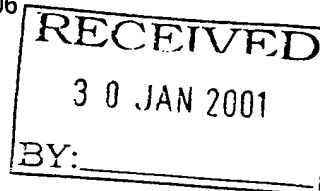
## PCT

### NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

PIZZEYS PATENT & TRADEMARK  
ATTORNEYS  
P.O. Box 291  
Woden, ACT 2606  
AUSTRALIE



<b>Date of mailing (day/month/year)</b> 18 January 2001 (18.01.01)		
<b>Applicant's or agent's file reference</b> 5189wee		<b>IMPORTANT NOTICE</b>
<b>International application No.</b> PCT/AU00/00781	<b>International filing date (day/month/year)</b> 30 June 2000 (30.06.00)	<b>Priority date (day/month/year)</b> 07 July 1999 (07.07.99)
<b>Applicant</b> WEEKS PEACOCK QUALITY HOMES PTY LTD et al		

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
 AG,AU,BZ,DZ,KP,KR,MZ,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:

AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CR,CU,CZ,DE,DK,DM,EA,EE,EP,ES,FI,GB,GD,  
 GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,  
 NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on  
 18 January 2001 (18.01.01) under No. WO 01/03865

#### REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

#### REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer  <div style="text-align: center;">J. Zahra</div>  Telephone No. (41-22) 338.83.38
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# PATENT COOPERATION TREATY

From the:  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
  
PIZZEYS  
PO Box 291  
WODEN ACT 2606

## PCT NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing  
day/month/year **15 SEP 2000**

Applicant's or agent's file reference  
5189wee

### IMPORTANT NOTIFICATION

International application No.  
PCT/AU00/00781

International filing date  
30 June 2000

Priority date  
7 July 1999

Applicant  
WEEKS PEACOCK QUALITY HOMES PTY LTD et al

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translations to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide

Name and mailing address of the IPEA/AU  
AUSTRALIAN PATENT OFFICE  
PO BOX 200, WODEN ACT 2606, AUSTRALIA  
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D.G. FRY

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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D 19 SEP 2000

WIPO

Applicant's or agent's file reference 5189wee	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International application No. <b>PCT/AU00/00781</b>	International filing date ( <i>day/month/year</i> ) 30 June 2000	Priority Date ( <i>day/month/year</i> ) 7 July 1999
International Patent Classification (IPC) or national classification and IPC  <b>Int. Cl. <sup>7</sup> B21D 39/02, 39/03, 51/26</b>		
Applicant <b>WEEKS PEACOCK QUALITY HOMES PTY LTD et al</b>		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of 3 sheets, including this cover sheet.  <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of 1 sheet(s).
3.	This report contains indications relating to the following items:  I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 30 June 2000	Date of completion of the report 1 September 2000
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>D.G. FRY</b>  Telephone No. (02) 6283 2130

**I. Basis of the report**

1. With regard to the **elements** of the international application:\*
- ☐ the international application as originally filed.
- ☒ the description, pages 1-3, as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☒ the claims, pages 4, as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages , filed with the demand,  
pages 5, received on 30 August 2000 with the letter of 28 August 2000
- ☒ the drawings, page 1, as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the sequence listing part of the description:  
pages , as originally filed  
pages , filed with the demand  
pages , received on with the letter of
2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.  
These elements were available or furnished to this Authority in the following language which is:
- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, was on the basis of the sequence listing:
- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished
4. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.
5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1-10	YES
	Claims	NO
Inventive step (IS)	Claims 1-10	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-10	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)****NOVELTY (N) INVENTIVE STEP (IS)**

DE 19749728 A (SCHMOLZ & BICKENBACH) 12 May 1999

US 5357667 A (SCHUTZ) 25 October 1994

These citations of the search report were directed only to claims that have been deleted by amendment.

There is no disclosure in these documents of the features set out in claims 1-10.

Hence the claims satisfy the requirements for novelty and inventive step.

**INDUSTRIAL APPLICABILITY (IA)**

The invention set out in the claims of this application satisfies the requirements for this criterion.

8. A tube as claimed in claim 7, wherein said tabs are folded inwardly.

9. A tube as claimed in claim 7, wherein said tabs are substantially V or U shaped.

5

10. A tube as claimed in claim 7, wherein complementary pairs of tabs are provided at regular centres along the length of the tube.

(19) World Intellectual Property Organization  
International Bureau



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18 January 2001 (18.01.2001)

PCT

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PQ 1493 7 July 1999 (07.07.1999) AU

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(74) Agent: **PIZZEYS PATENT & TRADEMARK ATTOR-  
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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— Without international search report and to be republished upon receipt of that report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD OF FORMING A TUBE

(57) Abstract: A method of forming a tube involves the punching of tabs from an overlapping longitudinal seam and folding the tabs to mechanically fix the opposed lateral edges of the sheet material forming the tube.

**WO 01/03865 A2**



**"METHOD OF FORMING A TUBE"****TECHNICAL FIELD**

5           This invention relates to a method of forming a tube.

**BACKGROUND ART**

10           It is known to form a tube by taking an elongate sheet of material having a pair of spaced, parallel lateral edges and bending the material about a longitudinal axis so that the lateral edges abut or overlap so as to form a tube. Thereafter, the abutting or overlapping lateral edges are fixed together, usually by welding, riveting or the like.

15           The present invention relates to a novel method of fixing together overlapping lateral edges during formation of a tube, and to a tube thus formed.

**DISCLOSURE OF INVENTION**

20           According to one aspect the invention resides in a method of forming a tube from an elongate sheet of material having a pair of spaced and parallel edges, the method including:-

              forming the elongate sheet into a tube such that the lateral edges of the sheet overlap to define an overlap region having an inner overlap portion and an outer overlap portion;

25           punching the inner overlap portion and outer overlap portion to define a tab in each, said tabs being aligned such that the tab defined in the inner portion is directly underneath the tab defined in the outer portion; and

              folding the tabs whereby the inner overlap portion and outer overlap portion are fixed together.

30           According to another aspect, the invention resides in a tube formed according to the method defined above.

              According to another aspect the invention resides in a tube manufactured from an elongate sheet of material formed into a tube and having its lateral edges

overlapping to define an inner overlapping portion and an outer overlapping portion, a tab defined in the inner overlapping portion, a tab defined in the outer overlapping portion, said tabs being aligned such that the tab defined in the inner overlapping portion lies directly beneath the tab defined in the outer overlapping portion, said tabs being folded such that the inner overlapping portion and outer overlapping portion are fixed together.

According to another aspect the invention resides in a tube or the like including:-

a longitudinally extending seam formed by overlapping opposed edges of sheet material forming the tube; and

fastening means for fastening together the overlapped edges, the fastening means being integrally formed by material punched from the overlapped edges.

According to another aspect the invention resides in a method of forming a tube or the like, the method including:-

bending sheet material about a longitudinal axis to overlap opposed edges of the material;

integrally fastening the overlapped edges by punching material from the overlapped edges.

## BRIEF DESCRIPTION OF DRAWINGS

Reference will now be made to the accompanying Figures which illustrate preferred embodiment(s) of the invention and in which:-

FIG 1 is front elevation of a tube according to the invention;

FIG 2 is an underside plan of the tube of FIG 1;

FIG 3 is a side elevation with cutaway detail of the tube of FIG 1.

## BEST MODE

With reference to FIG 1, there is shown a tube 10 formed from a sheet of material bent about a longitudinal axis such that the opposed lateral edges of the sheet of material overlap to define an overlapping region 12 whereat an outer overlapping portion 14 overlies an inner overlapping portion 16.

U or V-shaped tabs 18 are punched from the inner and outer overlapping portions and thereafter bent inwardly together to the position illustrated by 18' in FIG 3 thereby mechanically fixing the inner and outer overlapping portions together.

5 It will be understood that both the outer overlapping portion and inner overlapping portion are punched such that the tabs defined in the inner and outer portions abut each other and are bent in unison to the final interlocking position shown at 18' in FIG 3.

10 As shown, the punching and bending operation is repeated at regular centres along the longitudinal length of the tube such that the overlapping seam is stabilised along its entire length.

It will, of course, be realised that the above has been given by way of illustrative example of the invention. Any variations, modifications, or omissions, as would be apparent to persons skilled in the art, are deemed to fall within the  
15 broad scope of this invention.

## THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:-

1. A method of forming a tube from an elongate sheet of material having a pair of spaced and parallel edges, the method including:-
  - 5 forming the elongate sheet into a tube such that the lateral edges of the sheet overlap to define an overlap region having an inner overlap portion and an outer overlap portion;  
punching the inner overlap portion and outer overlap portion to define a tab in each, said tabs being aligned such that the tab defined in the inner portion is  
10 directly underneath the tab defined in the outer portion; and  
folding the tabs whereby the inner overlap portion and outer overlap portion are fixed together.
- 15 2. A method as claimed in claim 1, wherein the tabs are folded inwardly.
3. A method as claimed in claim 1, wherein the tabs are substantially V or U shaped.
- 20 4. A method as claimed in claim 1, wherein the tabs are simultaneously punched.
5. A method as claimed in claim 1, wherein complementary pairs of tabs are provided along the length of the tube at regular centres.
- 25 6. A tube formed according to the method defined in any one of claims 1 to 5.
7. A tube manufactured from an elongate sheet of material formed into a tube and having its lateral edges overlapping to define an inner overlapping portion and an outer overlapping portion, a tab defined in the inner overlapping portion, a tab defined in the outer overlapping portion, said tabs being aligned such that the tab  
30 defined in the inner overlapping portion lies directly beneath the tab defined in the outer overlapping portion, said tabs being folded such that the inner overlapping portion and outer overlapping portion are fixed together.

8. A tube as claimed in claim 7, wherein said tabs are folded inwardly.

9. A tube as claimed in claim 7, wherein said tabs are substantially V or U shaped.

5

10. A tube as claimed in claim 7, wherein complementary pairs of tabs are provided at regular centres along the length of the tube.

11. A tube or the like including:-

10 a longitudinally extending seam formed by overlapping opposed edges of sheet material forming the tube; and

fastening means for fastening together the overlapped edges, the fastening means being integrally formed by material punched from the overlapped edges.

15 12. A tube as claimed in claim 11, wherein the fastening means are tabs bent to abut the tube surface.

13. A method of forming a tube or the like, the method including:-

20 bending sheet material about a longitudinal axis to overlap opposed edges of the material;

integrally fastening the overlapped edges by punching material from the overlapped edges.

14. A method as claimed in claim 13, and further including:-

25 bending the punched material to abut the tube surface.

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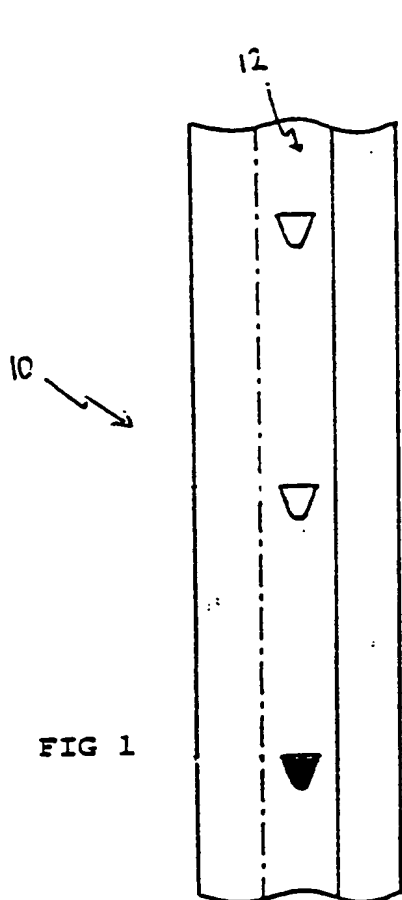


FIG 1

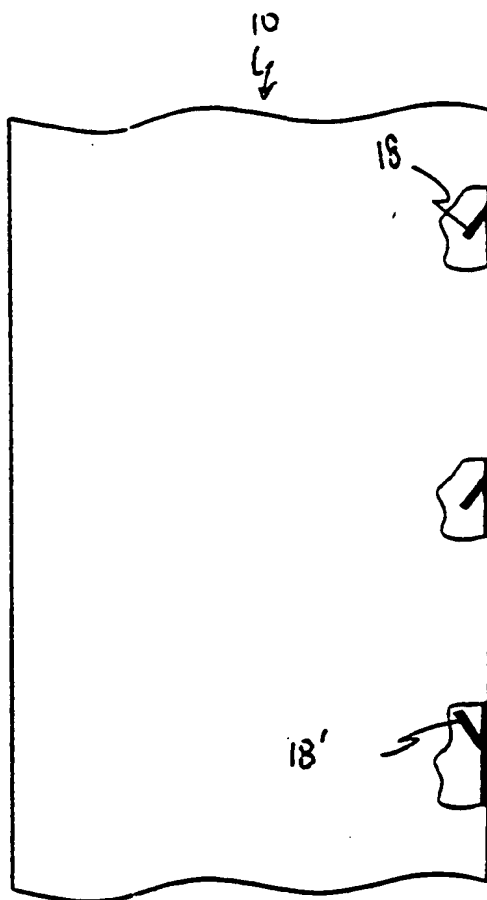


FIG 3

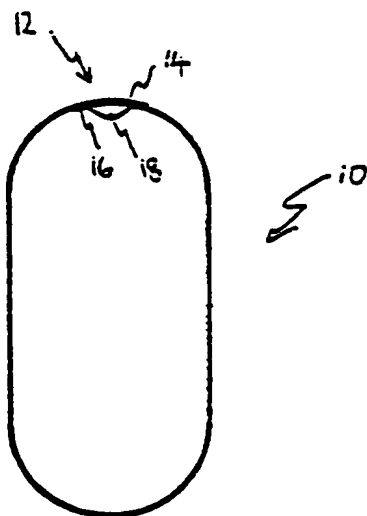


FIG 2